

Atty's 23306

Pat. App. Not known - US phase of PCT/DE2003/004184

CLAIM AMENDMENTS

1 - 24. (canceled)

1 25. (new) A method of making a conduit (1) for
2 vibration-stressed piping systems, in particular as a motor-vehicle
3 exhaust pipe, from a preshaped strip (2 or 3), in particular a
4 metal strip, that is helically wound with bellows-like turns (4 or
5 22), the wound-together layers formed by a strip width having
6 singly hooked-together or multilayer interlocked edges (9; 19)
7 joined by interfitting, welding, or a similar joining process, the
8 strip (2 or 3) being preshaped by at least one roller pair outside
9 the plane and being thereby deflected into an arcuate path with in
10 both stretched and compacted condition fold height (h1 and h2) of
11 the folds (4 and 22) equal to a multiple of the strip thickness,
12 characterized in that
13 the folds (4 and 22) are made by connecting the edges of webs (5a
14 and 5b) projecting radially from the trailing edge (10) of one turn
15 and the leading edge (11) of another turn.

1 26. (new) The method according to claim 25,
2 characterized in that
3 the web edges are deformed and joined together at peaks (15).

1 27. (new) The method according to claim 25,
2 characterized in that
3 the web edges are thermally joined together at peaks (15).

1 28. (new) The method according to claim 25,
2 characterized in that
3 a bell-shaped inner fold (22) is wound in a valley of an outer fold
4 (4) with diametrally extending webs (5b) projecting from a common
5 bridge and connecting web (21).

1 29. (new) The method according to claim 28,
2 characterized in that
3 upper free web edges of the bell-shaped inner fold (22) are
4 connected to adjacent web edges of the outer fold (4).

1 30. (new) A conduit (1) for vibration-stressed piping
2 systems, in particular as a motor-vehicle exhaust pipe, made from a
3 preshaped strip (2 or 3), in particular a metal strip, that is
4 helically wound with bellows-like turns (4 or 22), the wound-
5 together layers formed by a strip width having singly hooked-
6 together or multilayer interlocked edges (9; 19) joined by
7 interfitting, welding, or a similar joining process, the folds (4
8 and 22) having heights (h1 and h2) equal to a multiple of a strip
9 thickness, produced by the method of claims 1 to 5,
10 characterized in that
11 each fold (4) is formed by webs (5a and 5b) projecting radially
12 from the turns and having free edges that are connected gas-tight
13 together at the peak (15).

1 ~~31. (new) The conduit according to claim 30,~~
2 characterized in that
3 a tube-base forming strip (3) is formed with bell-shaped folds (22)
4 that are each fitted in a fold of the other strip (2), free web
5 edges of the outer fold (4) being joined at the peak (15) with th
6 free edges of the inner adjacent webs (5b) of the bell-shaped fold
7 (22) that covers the valley (16) of the outer fold (4) with a
8 connecting region (21) between its webs (5b).

1 32. (new) A conduit (1) for vibration-stressed piping
2 systems, in particular as a motor-vehicle exhaust pipe, made from a
3 preshaped strip (2 or 3), in particular a metal strip, that is
4 helically wound with bellows-like turns (4 or 22), the wound-
5 together layers formed by a strip width having singly hooked-
6 together or multilayer interlocked edges (9; 19) joined by
7 interfitting, welding, or a similar joining process, the folds (4
8 and 22) having heights (h1 and h2) equal to a multiple of a strip
9 thickness, produced by the method of claims 1 to 5,
10 characterized in that
11 each fold (4) is formed from a turn layer with a peak (15) of a
12 preshaped closed turn and has a gas-tight interlock connection (9
13 or 19).